

CLAIMS

1/ A method of downloading application software specific to an operator into a general-purpose digital television decoder platform, in which:

- 5 · a secure boot loader is stored definitively in a protected and non-rewritable memory zone of the platform;
 · a message identifying the platform and containing the application program making the platform suitable for decoding the data stream of the television signal of an operator and for processing its services is broadcast
10 periodically in the digital television signal that comes from the operator and that is designed to be accessible, each of said messages having an electronic signature;
 · on reception, the messages containing the program
15 and identifying the platform and the operator are selected, decoded, and written into a rewritable program memory (38), optionally on user command.

2/ A method according to claim 1, characterized in that
20 the application software is transmitted in the form of data to be programmed in said writable memory, in the form of data blocks each copied at a respective address (A_1, \dots, A_n) of the writable memory and supplied in the header of the block.

25 3/ A method according to claim 2, characterized in that the data blocks are preceded by a header block comprising a description of the application and of each of the data blocks.

30 4/ A method according to claim 3, characterized in that each data block includes an error correction code, such as a cyclic redundancy code.

35 5/ A method according to claim 3 or 4, characterized in that the header includes at least one of the following fields:

- the identity of the platform manufacturer (C_1);
 - the hardware version of the platform (C_2);
 - the mode whereby the decoder was acquired (C_3);
 - the identity of the current version of the
- 5 software (C_4); and
- the individual serial number of the decoder (C_5).

6/ A method according to claim 2, characterized in that the SI or PSI information associated with the broadcast

10 messages and containing application programs include at least one of the following fields:

- the identity of the platform manufacturer;
 - the hardware version of the platform;
 - the decoder acquisition mode;
- 15 · the identity of the current version of the software; and
- the individual serial number of the decoder.

7/ A method according to claim 4, 5, or 6, characterized

20 in that each of the data blocks is associated with an encrypted signature included in the header, and in that the header itself includes an encrypted signature.

8/ An installation for downloading application software

25 into digital television decoder platforms, the installation comprising:

- in each platform, a general-purpose processor module that is independent of any operator and that serves: to select and extract a data stream representing
- 30 application software specific to the program pack offered by an operator, to record it in a rewritable program memory (38) for storing said software, and to control the decoder to implement the services identified by the software; and
- 35 · with the broadcaster, means for inserting in repetitive manner in the broadcast digital data stream both a sequence of blocks representing said specific

software and information describing the characteristics of only those decoders that are to be loaded.

- 5 9/ An installation according to claim 8, characterized in that the processor module comprises, in addition to the rewritable memory (38), a processor (30), a volatile working memory (36) that is directly accessible by the processor, and a non-volatile memory zone (34) which is protected, not rewritable, and which has secure access.
- 10 10/ An installation according to claim 9, characterized in that the protected non-volatile memory zone (34) forms part of a flash memory (38).